

## CLAIMS:

1. A method for writing data (DATA) from a processor (603) to a non-volatile memory (602) embedded in an integrated circuit, comprising the following steps
  - (a) at least part of said data (DATA) to be written to said non-volatile memory (602) is transferred to a volatile memory (601),
  - (b) when said data (DATA) has been transferred to said volatile memory (601), a wait signal (wait) is sent to said processor (603),
  - (c) said data (DATA) is transferred from said volatile memory (601) to said non-volatile memory (602),
  - (d) said wait signal (wait) is removed.
2. The method for writing data according to claim 1, wherein the data transfer is controlled by an interface (605).
3. The method for writing data according to claim 1 or 2, wherein at the beginning of the data transfer from the volatile memory (601) to the non-volatile memory (602), said non-volatile memory (602) is set in write mode.
4. The method for writing data according to any of the preceding claims, wherein during the data transfer from the volatile memory (601) to the non-volatile memory (602), said non-volatile memory (602) is set in program mode.

5. The method for writing data according to any preceding claim, wherein at the end of the data transfer from the volatile memory (601) to the non-volatile memory (602), said non-volatile memory (602) is set in read mode.

5 6. The method for writing data according to any preceding claim, wherein all of the data (DATA) is transferred first to the volatile memory (601).

7. The method for writing data according to any preceding claim, wherein the addresses (ADDR) corresponding to the data (DATA) to be written to the non-  
10 volatile memory (602) are stored intermediately.

8. The method for writing data according to any preceding claim, wherein before the data (DATA) is written to the volatile memory (601), the wait signal (wait) is sent to the processor (603) and is removed after said data (DATA) is completely written  
15 to said volatile memory (601).

9. An integrated circuit with a processor (603), a volatile memory (601), a non-volatile memory (602), and an interface (605) connecting said processor (603) to said volatile memory (601), and said non-volatile memory (602) to said volatile  
20 memory (601), wherein said interface (605) is equipped:

- to transfer data (DATA) to be written to said non-volatile memory (602) first to said volatile memory (601),
- to send a wait signal (wait) to said processor (603) when said data  
25 (DATA) is transferred to said volatile memory (601),
- to transfer said data (DATA) from said volatile memory (601) to said non-volatile memory (602), and
- to remove said wait signal (wait).

10.           The integrated circuit according to claim 9, wherein  
the non-volatile memory (602) is a flash memory.

11.           The integrated circuit according to claim 9 or 10, wherein  
5 the volatile memory (601) is a random access memory or a static random access  
memory.

12.           The integrated circuit according to claim 9, 10 or 11, wherein  
the volatile memory (601) is an embedded volatile memory.

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